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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,285	11/19/2001	Ludwig Wieres	E-41409	7087

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EXAMINER
STRICKLAND, JONAS N

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 09/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,285	Applicant(s) WIERES, LUDWIG	
	Examiner Jonas N. Strickland	Art Unit 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6,10,13,16 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,10,13,16 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on 7/7/03, PROSECUTION IS HEREBY REOPENED. The rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 4, 6, 10, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheller (US Patent 5,422,083) in view of Aggen et al. (US Patent 4,414,023) and Ikegami et al. (US Patent 5,055,145).

Sheller discloses metal monolith converter used in the exhaust lines of motorcycles, as well as the internal combustion engine of automobile vehicles (col. 1, lines 8-27). The metal layers are comprised of stainless steel, comprised of 16% chromium, 4.5% aluminum, and one or more of rare earth metals (col. 2, lines 47-67). The stainless steel has a thickness of 0.22 mm and has a passage of between 50 cpsi to 800 cpsi (col. 4, lines 36-51). However, Sheller does not disclose having an aluminum content in percent by weight of between 6 and 12%, as well as the weight percentage of the rare earth metal. Furthermore, Sheller does not disclose wherein honeycomb bodies are used for the honeycomb bodies for the cleaning of exhaust gas

of a diesel engine in a diesel vehicle and wherein the aluminum content is based on the thickness of the sheet metal layers.

Aggen et al. teaches a hot workable stainless steel alloy, which consists of 8.0-25% of chromium, 3.0-8.0% by weight of aluminum, and up to 0.05% by weight of a rare earth metal, such as cerium, and lanthanum (col. 3, lines 14-30). Aggen et al. continues to teach wherein such an alloy is useful in catalytic systems and converters for automobiles (col. 18, lines 32-44). Aggen et al. continues to teach wherein the metallic catalytic substrate can be fabricated into honeycomb configurations to provide greater surface area and lighter weight (col. 1, lines 36-43).

Ikegami et al. teaches a production process of stainless steel covered with aluminum metal oxides for metal catalyst supports in automobile's exhaust gas converters (see abstract). Ikegami et al. continues to teach wherein an aluminum layered foil is to be used for catalyst supports in automobile's exhaust gas converters, the total amount of aluminum has to be adjusted to 3 percent and above in the foil. Therefore, the thickness of aluminum layer to be put on stainless steel is naturally different from case to case with the thickness and the aluminum content of ferrite stainless steel foils (col. 3, lines 31-43). It would have been obvious to one of ordinary skill in the art to apply the composition of the alloy to be dependent upon the thickness of the foil, based on the teachings of Ikegami et al.

Furthermore, it would have been obvious to one of ordinary skill in the art, to modify the teachings of Sheller based on the teachings of Aggen et al. to have an aluminum content in percent by weight of between 6 and 12%, as well as the weight

percentage of the rare earth metal, because Aggen et al. teaches a hot workable stainless steel alloy, which is useful in catalytic systems and converters for automobiles which consists of 8.0-25% of chromium, 3.0-8.0% by weight of aluminum, and up to 0.05% by weight of a rare earth metal, such as cerium, and lanthanum. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill in the art would expect a layer formed of stainless steel comprised of chromium, aluminum, and a rare earth metal, used in catalytic systems to be similarly useful and applicable to a carrier formed of stainless steel, comprised of chromium, aluminum, and rare earth metals as taught by Sheller.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheller (US Patent 5,422,083) in view of Aggen et al. (US Patent 4,414,023) and Ikegami et al. (US Patent 5,055,145) as applied to claims 1, 4, 6, 10, 13, and 19 above, and further in view of Sato et al. (EP 0497992 A1).

Applicant claims with respect to claim 16, wherein the sheet metal layers are rolled and removed from a production process for producing hot-dip aluminized material before the aluminum content is raised.

The teachings of Sheller, Aggen et al. and Ikegami et al. have been discussed with respect to claims 1, 4, 6, 10, 13, and 19. Aggen et al. teaches rolling the sheet metal layers, but does not teach removing from a production process for producing hot-dip aluminized material before an alumina content is raised (col. 3, lines 35-43).

However, Sato et al. teaches a stainless steel roll for automobile exhaust gas purifying catalyst carrier, which is a cold-rolled rapidly solidified steel foil comprised of 1

to 20% by weight of Al, 5 to 30% by weight of Cr, as well as rare earth metals. Sato et al. continues to teach as the aluminum content is increased the rolling workability of stainless steel becomes much poorer, and the content of Al which will effectively improve the oxidation resistance must be limited (p. 2, lines 39-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Sheller in view of Aggen and Ikegami et al., based on the teachings of Sato et al., by removing an aluminized material after rolling, because Sato et al. teaches that it is beneficial to remove the aluminized material after rolling, so that the aluminum content would not rise and effect the oxidation resistance of the stainless steel. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill would expect a stainless steel foil for an automobile exhaust gas purifying catalyst comprised of aluminum, chromium, and a rare earth metal as taught by Sato et al to be similarly useful and applicable to the stainless steel layers used in catalytic systems of automobiles comprised of aluminum, chromium, and rare earth metals as taught by Sheller and Aggen et al. and Ikegami et al.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5,534,476 and US Patent 6,099,809.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N. Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH, 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.

Jonas N. Strickland
September 15, 2003

STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700